Tyler Alamo Port

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Education

California Inst. of Technology [Caltech], *B.S. in **Computer Science**:* *Jun. 2022*
- Studied Computer Science focusing on low-level GPU Programming for parallel algorithm acceleration. Taught and developed material for several CS courses including GPU Programming and Rust.

Work and Experience

Tivara, New York City, *Founding Software Engineer* *May 2025 - August 2025*
- Oversaw end to end development, and launched the product pilots, of AI Voice Agents for patient intake and scheduling for two clinical networks situated across the United States.
- Full stack development, including operations and infrastructure management, in Typescript, React, and Node.js.

Freelance Engineer and Independent Game Developer *October 2024 - Present*
- Leading a from-scratch Rust rewrite of `gssproxy`, the GSSAPI/Kerberos proxy daemon and its mechglue interposer: a memory-safe, drop-in replacement across a multi-crate workspace, with FFI to MIT krb5/GSSAPI and Kani formal verification of the security-critical XDR/gssx wire codec.
- Built dabney.moe as a Leptos (SSR + WASM) and Tauri v2 multiplatform app sharing one Rust UI crate, with a Nix-driven, multi-cloud (GCP/AWS/Azure) Terraform CI/CD pipeline producing hardened, statically-linked container images.
- Developed custom software solutions for clients in Rust, Python, C++, and GPU acceleration; designed and implemented core systems for an independent game, Rummage.

Carl Zeiss AG., Germany, *System Software Engineer* *March 2023 - March 2024*
- Led systems engineering efforts focused on High-Performance Computing (HPC) using GPUs and FPGAs, specializing in CUDA C++, SYCL, and Python for accelerating scientific and potentially AI/ML workloads.
- Managed master's students and interns on projects involving GPU/FPGA programming and system optimization.
- Developed, deployed, and tested FPGA implementations of Pytorch machine learning models for real-time image signal processing pipelines.

Caltech, *Lecturer and Teaching Assistant in Computer Science* *April 2018 - June 2022*
- Taught and developed material for CS179 (GPU Programming, Nvidia CUDA), the CS11 Rust workshop (reimplementing CS24 Operating Systems assignments from C to Rust), and CS121 (relational database theory and SQL).

North American Partners in Anesthesia., *Software Engineering Intern* *Dec 2019 - August 2020*
- Automated inter-database validation and data entry using C# and UIPath for healthcare systems (Cactus, National Provider DB).

Tinder Inc., *Software Engineering Intern* *June 2018 - August 2018*
- Developed Prometheus/Grafana extension (Python, Puppet) to trace microservice dependencies and identify root causes of service degradation.

NASA Jet Propulsion Lab, *Software Engineering Intern* *January 2018 - June 2018*
- Accelerated Europa Lander orbital calculations via MATLAB-to-CUDA C++ reimplementation for large-scale parallel simulation/visualization.

Caltech IMSS, *IMSS Representative and UGCS Systems Administrator* *January 2016 - June 2022*
- Administered 150TB storage array and compute resources, ensuring high availability/performance for thousands of users (Linux environment).

DoubleVerify Inc., *Bot Fraud Analyst Intern* *June 2015 - September 2015*
- Analyzed malware network traffic to identify botnet ad fraud patterns; researched evolving botnet tactics (traffic exchanges, YouTube fraud).

KarmaFleet, *Director of Technology* *January 2015 - September 2016*
- Architected/developed Python/Flask/SQLAlchemy/PostgreSQL web app for 4500+ users; implemented DevOps (Docker, CI, monitoring) and managed critical infrastructure (VoIP, forums, chat).

GLO Gaming, *Office IT, Director of Technology* *January 2012 - September 2014*
- Managed IT infrastructure: network security, backups, user support, SalesForce CRM integration.

Skills

- Languages: **Rust**, **Python**, **C/C++**, **CUDA/SYCL/OpenCL/HIP (GPU Programming)**, SQL, C#, Java/Kotlin, Typescript/Javascript, Haskell, OCaml, VHDL, Mathematica.
- Platforms/Technology: Linux (Gentoo, Arch, RHEL/Fedora, Debian/Ubuntu), HPC Environments, FPGAs (Intel, AMD), Docker, Git, Windows, MacOS, BSD.
- Specialties: **GPU Computing & Parallelization**, **Systems Engineering & Administration**, **DevOps & Infrastructure Management**, High-Performance Computing (HPC), AI/Machine Learning (Pytorch), Low-Level Programming, Relational Database Design (SQL, PostgreSQL), Functional Programming, Computer Graphics.